

Appendix E

Projected Ten-Year Maintenance Cost

SAN JOAQUIN VALLEY - ROUTE 99 - FUTURE MAINTENANCE COST

11/21/2005

ROADWORK / COUNTY	AVG. ANNUAL COST FOR LAST FOUR YRS.	COST FOR 05/06 FY	COST FOR 06/07 FY	COST FOR 07/08 FY	COST FOR 08/09 FY	COST FOR 09/10 FY	COST FOR 10/11 FY	COST FOR 11/12 FY	COST FOR 12/13 FY	COST FOR 13/14 FY	COST FOR 14/15 FY	TOTAL COST PER CO. FROM 05/06 FY TO 14/15 FY
	COST	3% INCREASE	4% INCREASE	4% INCREASE	4% INCREASE	5% INCREASE	5% INCREASE	5% INCREASE	5% INCREASE	6% INCREASE	6% INCREASE	
KERN COUNTY												
HM1-Roadbed (Pavement)	\$213,704	\$220,115	\$228,920	\$238,077	\$247,600	\$259,980	\$267,779	\$275,812	\$284,087	\$292,609	\$301,388	\$2,830,069
* HM2-Roadside (Landscape)	\$783,582	\$807,089	\$839,373	\$872,948	\$907,866	\$953,259	\$981,857	\$1,011,313	\$1,041,652	\$1,072,902	\$1,105,089	\$10,376,929
HM3-Structures (Bridges)	\$91,508	\$94,253	\$98,023	\$101,944	\$106,022	\$111,323	\$114,663	\$118,103	\$121,646	\$125,295	\$129,054	\$1,211,835
HM4-Electrical/Traffic Guidance	\$378,803	\$390,167	\$405,774	\$422,005	\$438,885	\$460,829	\$474,654	\$488,894	\$503,560	\$518,667	\$534,227	\$5,016,465
HM5- Support/Training	\$302,748	\$311,830	\$324,304	\$337,276	\$350,767	\$368,305	\$379,354	\$390,735	\$402,457	\$414,531	\$426,967	\$4,009,274
HM6-Storms	\$124,661	\$128,401	\$133,537	\$138,878	\$144,433	\$151,655	\$156,205	\$160,891	\$165,718	\$170,689	\$175,810	\$1,650,878
KERN CO TOTAL COST	\$1,895,006	\$1,951,856	\$2,029,930	\$2,111,128	\$2,195,573	\$2,305,351	\$2,374,512	\$2,445,747	\$2,519,120	\$2,594,693	\$2,672,534	\$25,095,451
PER MILE COST (57.58 MI)	\$32,911	\$33,898	\$35,254	\$36,664	\$38,131	\$40,037	\$41,238	\$42,476	\$43,750	\$45,062	\$46,414	\$402,925
TULARE COUNTY												
HM1-Roadbed (Pavement)	\$126,886	\$130,693	\$135,920	\$141,357	\$147,011	\$154,362	\$162,080	\$170,184	\$178,693	\$189,415	\$198,886	\$1,608,601
* HM2-Roadside (Landscape)	\$465,248	\$479,205	\$498,374	\$518,309	\$539,041	\$565,993	\$594,293	\$624,007	\$655,208	\$694,520	\$729,246	\$5,898,195
HM3-Structures (Bridges)	\$59,789	\$61,583	\$64,046	\$66,608	\$69,272	\$72,736	\$76,373	\$80,191	\$84,201	\$89,253	\$93,715	\$757,977
HM4-Electrical/Traffic Guidance	\$244,135	\$251,459	\$261,517	\$271,978	\$282,857	\$297,000	\$311,850	\$327,443	\$343,815	\$364,444	\$382,666	\$3,095,029
HM5- Support/B47 Training	\$179,755	\$185,148	\$192,554	\$200,256	\$208,266	\$218,679	\$229,613	\$241,094	\$253,149	\$268,337	\$281,754	\$2,278,849
HM6-Storms	\$74,017	\$76,238	\$79,287	\$82,458	\$85,757	\$90,045	\$94,547	\$99,274	\$104,238	\$110,492	\$116,017	\$938,353
TULARE CO TOTAL COST	\$1,149,830	\$1,184,325	\$1,231,698	\$1,280,966	\$1,332,204	\$1,398,815	\$1,468,755	\$1,542,193	\$1,619,303	\$1,716,461	\$1,802,284	\$14,577,004
PER MILE COST (53.94 MI)	\$21,317	\$21,956	\$22,835	\$23,748	\$24,698	\$25,933	\$27,229	\$28,591	\$30,020	\$31,822	\$33,413	\$270,245
FRESNO COUNTY												
HM1-Roadbed (Pavement)	\$247,223	\$254,640	\$264,825	\$275,418	\$286,435	\$300,757	\$315,795	\$331,584	\$348,164	\$369,053	\$391,197	\$3,137,867
* HM2-Roadside (Landscape)	\$906,484	\$933,679	\$971,026	\$1,009,867	\$1,050,261	\$1,102,774	\$1,157,913	\$1,215,809	\$1,276,599	\$1,353,195	\$1,434,387	\$11,505,510
HM3-Structures (Bridges)	\$78,832	\$81,197	\$84,445	\$87,823	\$91,336	\$95,902	\$100,697	\$105,732	\$111,019	\$117,680	\$124,741	\$1,000,572
HM4-Electrical/Traffic Guidance	\$440,097	\$453,300	\$471,432	\$490,289	\$509,901	\$535,396	\$562,166	\$590,274	\$619,788	\$656,975	\$696,393	\$5,585,913
HM5- Support/ Training	\$350,233	\$360,740	\$375,170	\$390,176	\$405,783	\$426,073	\$447,376	\$469,745	\$493,232	\$522,826	\$554,196	\$4,445,318
HM6-Storms	\$144,213	\$148,539	\$154,481	\$160,660	\$167,087	\$175,441	\$184,213	\$193,424	\$203,095	\$215,281	\$228,197	\$1,830,417
FRESNO CO TOTAL COST	\$2,167,082	\$2,232,094	\$2,321,378	\$2,414,233	\$2,510,803	\$2,636,343	\$2,768,160	\$2,906,568	\$3,051,896	\$3,235,010	\$3,429,111	\$27,505,597
PER MILE COST (31.61 MI)	\$68,557	\$70,614	\$73,438	\$76,376	\$79,431	\$83,402	\$87,572	\$91,951	\$96,548	\$102,341	\$108,482	\$870,155
MADERA CO												
HM1-Roadbed (Pavement)	\$75,214	\$77,470	\$80,569	\$83,792	\$87,144	\$91,501	\$96,076	\$100,880	\$105,924	\$112,279	\$119,016	\$954,651
* HM2-Roadside (Landscape)	\$275,785	\$284,059	\$295,421	\$307,238	\$319,527	\$335,504	\$352,279	\$369,893	\$388,387	\$411,691	\$436,392	\$3,500,389
HM3-Structures (Bridges)	\$25,949	\$26,727	\$27,797	\$28,908	\$30,065	\$31,568	\$33,146	\$34,804	\$36,544	\$38,737	\$41,061	\$329,357
HM4-Electrical/Traffic Guidance	\$145,250	\$149,608	\$155,592	\$161,815	\$168,288	\$176,702	\$185,538	\$194,815	\$204,555	\$216,829	\$229,838	\$1,843,579
HM5- Support/Training	\$106,553	\$109,750	\$114,140	\$118,705	\$123,453	\$129,626	\$136,107	\$142,913	\$150,058	\$159,062	\$168,606	\$1,352,419
HM6-Storms	\$43,873	\$45,189	\$46,997	\$48,877	\$50,832	\$53,373	\$56,042	\$58,844	\$61,786	\$65,493	\$69,423	\$556,856
MADERA CO TOTAL COST	\$672,624	\$692,803	\$720,515	\$749,335	\$779,309	\$818,274	\$859,188	\$902,147	\$947,255	\$1,004,090	\$1,064,335	\$8,537,252
PER MILE COST (29.36 MI)	\$22,956	\$23,645	\$24,591	\$25,575	\$26,598	\$27,927	\$29,324	\$30,790	\$32,330	\$34,269	\$36,325	\$291,374

* HM2-ROADSIDE TOTAL COST REPRESENT 35% for LANDSCAPE, 40% FOR VEGETATION and 25% for LITTER

Figure E.1 San Joaquin Valley – State Route 99 – Future Maintenance Cost



Future Maintenance Cost continued

ROADWORK / COUNTY	AVG. ANNUAL COST FOR LAST FOUR YRS.	COST FOR 06/07 FY	COST FOR 07/08 FY	COST FOR 08/09 FY	COST FOR 09/10 FY	COST FOR 10/11 FY	COST FOR 11/12 FY	COST FOR 12/13 FY	COST FOR 13/14 FY	COST FOR 14/15 FY	TOTAL COST PER CO. FROM 05/06 FY TO 14/15 FY	
	COST	4% INCREASE	4% INCREASE	4% INCREASE	5% INCREASE	5% INCREASE	5% INCREASE	5% INCREASE	6% INCREASE	6% INCREASE		
MERCED COUNTY												
HM1-Roadbed (Pavement)	\$182,269	\$195,247	\$203,056	\$211,179	\$221,738	\$232,824	\$244,466	\$256,689	\$272,090	\$288,416	\$2,313,442	
* HM2-Roadside (Landscape)	\$668,319	\$715,903	\$744,539	\$774,321	\$813,037	\$853,689	\$896,373	\$941,192	\$997,664	\$1,057,523	\$8,482,611	
HM3-Structures (Bridges)	\$30,378	\$32,541	\$33,843	\$35,196	\$36,956	\$38,804	\$40,744	\$42,781	\$45,348	\$48,069	\$385,571	
HM4-Electrical/Traffic Guidance	\$288,592	\$309,140	\$321,505	\$334,366	\$351,084	\$368,638	\$387,070	\$406,423	\$430,809	\$456,657	\$3,662,942	
HM5- Support/Training	\$258,214	\$276,599	\$287,663	\$299,169	\$314,128	\$329,834	\$346,326	\$363,642	\$385,461	\$408,588	\$3,277,370	
HM6-Storms	\$106,323	\$113,893	\$118,449	\$123,187	\$129,346	\$135,814	\$142,604	\$149,734	\$158,718	\$168,242	\$1,349,500	
MERCED CO TOTAL COST	\$1,534,095	\$1,643,323	\$1,709,055	\$1,777,418	\$1,866,289	\$1,959,603	\$2,057,583	\$2,160,462	\$2,290,090	\$2,427,495	\$19,471,436	
PER MILE COST (37.41 MI)	\$41,008	\$43,927	\$45,684	\$47,512	\$49,887	\$52,382	\$55,001	\$57,751	\$61,216	\$64,889	\$520,487	
STANISLAUS COUNTY												
HM1-Roadbed (Pavement)	\$191,323	\$204,945	\$211,094	\$217,426	\$228,298	\$239,713	\$251,698	\$264,283	\$280,140	\$296,948	\$2,393,521	
* HM2-Roadside (Landscape)	\$701,519	\$751,467	\$774,011	\$797,232	\$837,093	\$878,948	\$922,895	\$969,040	\$1,027,182	\$1,088,813	\$8,776,261	
HM3-Structures (Bridges)	\$31,887	\$34,157	\$35,182	\$36,238	\$38,049	\$39,952	\$41,949	\$44,047	\$46,690	\$49,491	\$398,918	
HM4-Electrical/Traffic Guidance	\$302,929	\$324,498	\$334,232	\$344,259	\$361,472	\$379,546	\$398,523	\$418,450	\$443,556	\$470,170	\$3,789,753	
HM5- Support/Training	\$271,041	\$290,339	\$299,049	\$308,021	\$323,422	\$339,593	\$356,573	\$374,401	\$396,865	\$420,677	\$3,390,823	
HM6-Storms	\$111,605	\$119,551	\$123,138	\$126,832	\$133,174	\$139,832	\$146,824	\$154,165	\$163,415	\$173,220	\$1,396,220	
STANISLAUS CO TOTAL COST	\$1,610,304	\$1,724,958	\$1,776,706	\$1,830,008	\$1,921,508	\$2,017,583	\$2,118,463	\$2,224,386	\$2,357,849	\$2,499,320	\$20,145,496	
PER MILE COST (25.06 MI)	\$64,258	\$68,833	\$70,898	\$73,025	\$76,676	\$80,510	\$84,536	\$88,762	\$94,088	\$99,733	\$803,890	
SAN JOAQUIN COUNTY												
HM1-Roadbed (Pavement)	\$206,915	\$221,647	\$230,513	\$239,734	\$251,720	\$264,306	\$277,522	\$291,398	\$308,882	\$327,415	\$2,626,260	
* HM2-Roadside (Landscape)	\$758,688	\$812,707	\$845,215	\$879,023	\$922,975	\$969,123	\$1,017,580	\$1,068,458	\$1,132,566	\$1,200,520	\$9,629,615	
HM3-Structures (Bridges)	\$34,486	\$36,941	\$38,419	\$39,956	\$41,954	\$44,051	\$46,254	\$48,567	\$51,481	\$54,569	\$437,712	
HM4-Electrical/Traffic Guidance	\$327,615	\$350,941	\$364,979	\$379,578	\$398,557	\$418,485	\$439,409	\$461,379	\$489,062	\$518,406	\$4,158,240	
HM5- Support/Training	\$293,130	\$314,001	\$326,561	\$339,623	\$356,604	\$374,435	\$393,156	\$412,814	\$437,583	\$463,838	\$3,720,540	
HM6-Storms	\$12,070	\$12,929	\$13,447	\$13,984	\$14,684	\$15,418	\$16,189	\$16,998	\$18,018	\$19,099	\$153,198	
SAN JOAQUIN CO TOTAL COST	\$1,632,904	\$1,749,167	\$1,819,133	\$1,891,899	\$1,986,494	\$2,085,818	\$2,190,109	\$2,299,615	\$2,437,592	\$2,583,847	\$20,725,565	
PER MILE COST (37.78 MI)	\$43,661	\$46,769	\$48,640	\$50,586	\$53,115	\$55,771	\$58,559	\$61,487	\$65,176	\$69,087	\$554,159	
* HM2-ROADSIDE TOTAL COST REPRESENT 35% for LANDSCAPE, 40% FOR VEGETATION and 25% for LITTER											GRAND TOTAL	\$136,057,800
											GRAND TOTAL PER MILE COST	\$3,713,236

* HM2-ROADSIDE TOTAL COST REPRESENT 35% for LANDSCAPE, 40% FOR VEGETATION and 25% for LITTER

